

ABSTRACT

The present invention discloses an adjustable hydraulic press with both upper and lower double action, specially suitable for the cylindrical gear formed by stamping or expanding, closed forging and the metal cold forming or metal hot forming of punching, finishing, flanging and drawing of sheet materials. The press comprises four columns, an upper beam, a main slide block, a hold down slide block, a fixing worktable, a floating worktable and a lower beam. The hydraulic chamber of master cylinder fixed in the upper beam communicates to the hydraulic chamber of the auxiliary cylinder, the plunger of master cylinder is connected to the main slide block and drives it. The hydraulic chamber of gas-liquid power accumulator fixed in the main slide block communicates to the hydraulic chamber of hold down cylinder, the plunger of hold down cylinder is connected to the hold down slide block and drives it. The plunger of ejecting cylinder fixed in the lower beam is connected to the floating worktable and drives it. The hydraulic press of the invention simplifies the hydraulic system of the existing hydraulic, improves utilization rate of energy, production efficiency and working accuracy of workpiece.